CHAPTER 7

PORTRAITURE

A portrait is a likeness of a person, especially the face. This definition isolates *one* essential point in portraiture. A portrait should emphasize the person, rather than the person's environment or something associated with the person. However, a pictorial representation that portrays *only* a recognizable likeness of a person is not enough. A portrait must be more than just a photograph, It must have mood, personality, and possess characteristics from which a viewer can draw conclusions about the subject. By manipulating expressions, posing, lighting, and environments, a portrait photographer can portray any mood from happiness to gloom, as well as the personality of a subject. Posing the subject with familiar objects and environments can produce a more natural expression and pose because the subject will be more at ease. Articles or props included in the scene can help tell more about the subject.

Success in portraiture requires a thorough understanding of the techniques involved, an artistic ability, and a talent for directing the subject through a desired expression or pose. The portrait photographer should have a sensitivity for, and an understanding of, people. Portrait photographers vary considerably in their styles and techniques. The subjects of portraits vary in their likes and dislikes. There is no one blueprint or formula that will assure success.

The portrait is an interesting and challenging assignment to many Navy photographers. In portraiture the subject is always changing and challenging the Photographer’s Mates. To meet the challenge of portrait photography, you must have vision, good judgment, and the ability and willingness to show them to greatest advantage.

Most people have their portrait made because they want someone else to see how they look A beautiful woman knows she is beautiful, and in a picture, she wants to appear beautiful-so make her beautiful. Some flattery may be necessary, but you should not overdo it. Men know their features; they know whether they appear dignified; they know whether they appear to have great strength of character; and they are correct in expecting the photographer to emphasize these good points. The subject expects a true portrait-a good expression and a natural pose, a portrait that shows whatever beauty or strength the person has, and one that reflects his or her character and features.

Character is formed by life. A frown or a smile today leaves no trace, but continued use of facial muscles to form a smile, a laugh, or a frown leaves lines on the forehead, around the eyes, nose, and mouth. These lines and expressions form facial character. They are subdued or exaggerated by the way you light the subject. You should not eliminate character lines altogether, but, you should only soften them with lighting. A face has features: two eyes, a nose, a mouth, and two ears, but photographically these features are not equally important. To the portrait photographer, the most important and most expressive are the eyes; the mouth is second only to the eyes.

Facial expressions constantly change and last only momentarily. No happy expression or frown lasts long enough to take full notice of it-until it is photographed. When you photograph an expression at the wrong instant, all the bad points appear exaggerated.

To be a good portrait photographer, you must learn to study each face as it appears before the camera, and light it to represent the natural features and character accurately. Do not try to capture that fleeting expression. It is not the expression that shows that person's true character. What you want is a person's natural expression. A softness of expression is best-neither too sharp nor too faint; not too lively or too gloomy.

PORTRAIT STUDIO

The portrait studio should be a place isolated from distraction where the photographer and subject can work without interruption. It should be a comfortable place where the subject feels at ease, where the *tested* equipment works, where the color quality of the light can be controlled, and where the photographer and subject can move from pose to pose without interruption. Avoid using the portrait studio as a crew's lounge or lunchroom. The portrait studio should always be clean and neat. The portrait studio is one of the few areas that customers ever see, and it represents the overall condition of your photo lab.

The studio should be arranged so the lights, camera, and electrical cords are safely out of the way and your subject does not have to avoid tripping over them. Every effort must be made to make the portrait session a pleasant experience for the customer. Any props to be used should be stored out of the way where they can be retrieved quickly and easily.

The studio should be spacious enough to move around freely, with enough room surrounding the posing bench so the subject does not feel crowded. The distance from the posing bench to the background should be great enough so shadows from the subject are not cast onto the background. This distance should also be great enough so the background is out of focus when the lens is stopped down to the working aperture. The studio should have enough room so a longer than normal lens can be used and provide enough room behind the camera so the photographer can move about freely. It should be wide enough so the lights can be moved in an arc around the subject without changing the light-to-subject distance. The ceiling should be high enough to provide enough space for a standing full-length portrait.

Whatever the size or location of the studio, it must, above all, be a productive, professional workplace, having everything required to produce technically perfect portraits.

In many Navy photo labs, especially the old ones and aboard ship, these conditions do not exist. Just because you do not have a large “professional” studio and equipment does not mean you cannot produce professional quality portraits. Many professional quality portraits are made by Navy Photographer's Mates using only two small lights in a compartment being used as an office, finishing room, and darkroom aboard ship.

STUDIO EQUIPMENT

There are endless types and manufacturers of studio equipment available for controlling light and making portraits. The size and the budget of your imaging facility determines what is available for making portraits. This chapter discusses only the basic studio equipment that is common to most Navy imaging facilities.

Camera

Regardless of what camera you use in the portrait studio, it should be clean and in good working order. The camera should have interchangeable lenses and be at least medium format. The larger the negative size of your portraits, the higher the quality of the finished product.

Lenses

A lens used for portraits should have a longer than normal focal length. A long-focal-length lens produces a large image on the film while keeping the camera at a far enough distance from the subject to prevent image distortion. Normal-focal-length lenses are too short for anything but full-length portrait photography. They require the camera to be too close to the subject, image distortion becomes apparent, and working too close to the subject may intimidate him or her. Working too far from the subject with a normal lens to prevent distortion makes the image size too small. The ideal lens for portraiture should have a focal length equal to 1 1/2 or 2 times the diagonal of the film. When you are using 4x5 film, the lens focal length should be about 8 to 12 inches.

Background

Simplicity is the key word in portrait backgrounds. Simple backgrounds give more artistic results by maintaining viewer interest on the subject. The most widely accepted background is a large, flat, unmarked surface, such as a painted screen, an actual wall of the studio, or seamless background paper suspended from the ceiling. Whatever the background, it should have a matte finish, rather than a glossy finish. A glossy finish causes distracting reflections.

A background can be plain or patterned. When the background has a pattern, it must not detract the viewer from the main subject. When props are used, such as a globe or an American or Navy flag, they must not draw attention away from the subject.

The background should normally be light and neutral in color; however, black or dark backgrounds are used for certain effects. A black background is used to add richness to the finished print. When a black background is used, keep your subject a good distance from it to prevent the lights (except the background light) from striking it.

The color of a background becomes important when color portraits are made. Bright-colored backgrounds should be avoided because they distract from the subject. When using a cold-colored (blue, green, etc.)

background, you must prevent the background from reflecting colored light onto the sides of the subject's face. This produces a sickly appearance. The background tone can be changed by adjusting the amount of light falling upon it. Dark backgrounds with earthen colors, such as brown and dark orange, can be used for low-key portraits. Intensely illuminated backgrounds with light pastel colors can be used for high-key portraits.

Your studio should have enough backgrounds to meet the demands of customers. As a minimum, you should have a gray or light blue background for roster photographs and white for full-length photographs. Always stock extra white seamless paper. White seamless paper is used mostly for full-length photographs. This paper becomes dirty and is torn rapidly since it is being continually walked on. You can extend the life of the background paper for full-length portraits by laying sheets of acetate (such as clean-up film) on top of the area to be walked on. The acetate does not show up on the film or print.

Lights and Accessories

Almost any type of light can be used for portrait photography. This includes natural light, such as the sun, as well as artificial light, such as electronic flash.

The sun, with its different forms of illumination-daylight, skylight, and window light-is the major source of natural illumination for portraits. The sun is used primarily for location portraiture.

Most types of artificial light can be used for portrait photography as long as the intensity is sufficient to permit short exposures. Short exposures are desired because it is difficult to keep a subject motionless during a long exposure. For color portraits, the color quality of the light source should be the same as that for which the film is balanced. Of all the artificial light sources available, electronic flash is the best light source for portrait photography because of the following:

- It provides a large output of light without the annoying heat produced by incandescent lights.
- The extremely short duration of the flash stops subject movement.
- The color temperature of the light is compatible with daylight.
- They are as versatile as other light sources.

Electronic flash units specifically designed for portraiture usually have tungsten modeling lamps located near the electronic flashtube. These modeling lamps provide constant, low-intensity illumination on the subject or background. This allows you to see the lighting effect that will be produced when the electronic flash units are fired.

BASIC LIGHTING UNITS.–Studio electronic flash units are divided into two broad classifications: those that project a relatively narrow cone of concentrated, crisp light and those that project a broad area of softer, more diffuse light.

Spotlight.–A spotlight projects a narrow, highly concentrated, crisp beam of light, produced by an undiffused clear flashtube. A Fresnel lens or a small reflector with a mirror finish is used to direct and focus the light. The light produced by a spotlight is very much like direct sunlight on a clear day. The light rays are nearly parallel and are not diffused. The shadows cast by a spotlight are hard with sharply defined edges that add crispness. A spotlight is usually used to highlight or stress a feature of the subject or as a hair light or background light.

Floodlight.–A floodlight produces a broad area of partially diffused, soft light, very much like sunlight on an overcast day. A frosted globe is used over the flashtube, so the light produced is initially diffused. The light is further diffused by the reflector that causes the light rays to cross and interfere with each other. The rays, projected from the front of the flashtube, however, are not as diffused and have a crisper quality. The light, produced by an electronic flash floodlight, has a crisp quality at the center and a softer quality toward the edge. When you want to use just the softer part of the light, allow only the outer part of the light beam to fall on the subject. This technique is called *feathering* the light. When you want the entire beam of light to be diffused and very soft, use a diffusing screen over the light source. There is also a type of light unit known as a *capped* light. This type of unit has an opaque metal cap placed in front of the flashtube to block specular light from reaching the subject. All light projected by a capped unit is diffused.

A floodlight is usually used as the main (modeling, or key) light in portraits, especially where a soft effect is desired. It is also used as a fill light because a fill light is always diffused.

ACCESSORIES.–Many accessories are available for use with studio lighting units. Accessories are

important tools that make your portrait lighting units either more dependable or more versatile. They aid in creating the exact lighting affect you want. Common accessories are as follows: diffusers, barn doors, snoots, and umbrellas. If accessories are not available, compromises in the lighting can alter the effect and quality you desire.

Diffusers.–You use diffusers when you want to change specular light to a softer, more diffused light. Diffusers are made of translucent or mesh materials that, when placed in the light beam, break up or diffuse and soften the light. The finer the mesh, the more diffused the light. When only a small amount of diffusion is needed, a wide mesh material, such as *gray* window screen, works well. For more diffusion, two pieces of screen can be placed together slightly out of alignment, or a finer mesh material, such as *white* cheesecloth, can be used. Floodlights initially produce a fairly diffused light, but diffusers may also be used with them. Diffusers can be mounted on the light unit or placed somewhere between the light unit and your subject.

There are many reasons for using a diffuser instead of a light that already produces diffused light. A diffuser may be needed when you do not have a soft light available. A softness that is between two different light sources may be needed, or you may want to produce a small area of diffused light that can only come from a spotlight with an installed diffuser.

Barn Doors.–Barn doors are made from opaque material. They are usually made of metal, painted black, and attached and hinged to the front of a light unit. They can be positioned to block or feather a portion of the light produced by the unit. Barn doors are made for both spotlights and floodlights. They are good accessories for controlling spill light.

Snoots.–Snoots are cylinders, open at both ends, usually made of metal and painted black. They are used at the front of a spotlight to limit the size of the circular area projected by the unit. Short, wide snoots give a large circle of light. Long, narrow snoots give a narrow circle of light. A cardboard tube or black-rolled paper can be used for a snoot when you need to improvise.

Umbrellas.–Umbrellas work much like the reflectors used on floodlights and provide an excellent means of converting specular light into soft, diffused light. They are used with any light source. The light unit is pointed away from the subject; the umbrella is attached in front of the light and reflects or bounces the light back and onto the subject. The reflected light falling on the subject is softer and more diffused than the light originally emitted by the source.

The reflecting surface of the umbrella determines the quality of the light. Umbrellas are usually made with a matte, white surface that provides a very soft, completely diffused light. Some umbrellas are constructed with a shiny, metalized surface. Metalized umbrellas throw a somewhat specular light, but the light is softer and spread over a larger area than the light emitted by the original light source.

FILM FOR PORTRAITS

For black-and-white portraits, black-and-white panchromatic film is generally used. With a pan film, the appearance of any red spots, veins, or redness in the subject's skin is apparently reduced in the final print, because of the sensitivity of the film to red. Conversely, an orthochromatic film can be used when the texture of a man's skin, especially an older man, is to be emphasized.

When you select a color film for portrait photography, there are two important considerations: What type of product is to be produced and what is the color of the light source?

Another factor to consider in selecting a film for portraiture is the ISO film speed in relation to the intensity of the light source. A slow film can be used successfully with a light source that has relatively high intensity, such as an electronic flash unit. When the same slow film is used with a light source that has relatively low intensity, an extremely wide aperture must be used. When a fast film is used with a high-intensity light source, a smaller aperture is required, increasing the depth of field which may not be desirable for portraiture.

When you are shooting portraits, do not be stingy with film. With a medium-format camera, you have 9 to 15 frames to work with. When you have the commanding officer or the admiral in the studio for a portrait, shoot at least the entire roll. Never shoot just three or four frames. Film is cheap and you want to provide the customer with a variety of poses and expressions to choose from.

MAKING THE APPOINTMENT

When possible, portrait times should be made by appointment. Using an appointment system gives you a

good start towards making a successful portrait. By using an appointment system, it tells your subject that he or she is important and will not be wasting time waiting to get into the studio. This brings the person to the studio with a positive attitude, and that is half the battle. An appointment also helps you. When an appointment system is used, you know how much time you have to work with each subject, and you do not have to rush through a sitting because someone else is waiting prematurely. Between appointments you have time to straighten up the studio, load film, complete job orders, screen processed portrait film, and so on.

Appointments should be made at least 15 minutes apart. This way you have time to take care of other business that may come up. If one customer is a few minutes late, you can also use this time to catch up.

When appointments are made, suggest to the person that they come in early in the day. Most people look their best and their clothes are fresher early in the day. Men, particularly those who develop a heavy beard (five-o'clock shadow), need to have their portraits made at the beginning of the day. However, they should not shave then come right in to be photographed. This provides time for facial blemishes, caused by shaving, to disappear.

Men should have a haircut and look sharp, but the haircut should be a day or two old. Uniforms should be pressed and well fitted with all awards, grade, and rating insignia properly placed. A chart of military awards and decorations is helpful in settling differences regarding the proper placement of ribbons and metals.

THE SUBJECT

When someone comes to the photo lab for a portrait, that person usually feels uncomfortable (like going to the dentist). Your attitude can help make the person feel relaxed. The secret to your success in putting the subject at ease is to convey a genuine and sincere attitude. Let the person know by your words and actions that you plan to do your best to produce a portrait that anyone would be proud to display.

Your attitude will leave a lasting impression on the subject and set the tone for the portrait setting. Greet the customer warmly, with a smile on your face as well as in your voice.

You, as the portrait photographer, should make it your business to know something about the subject. What is his job? Where does she work? How long has he been on board? What was her last duty station, and so on? The more you know about your subjects, the easier it is to work with them. Train yourself to gather a quick impression of the subject's intellect, taste, and aspirations. Talk to each of them and gather information regarding their special interests.

Conversation sooner or later strikes a responsive chord and the subject's face comes to life and gives you that natural expression so necessary to the finished portrait. Since the success of the portrait depends greatly on a natural expression, your task is to create a friendly situation whereby the subject feels he has an equal part. The making of a good portrait depends on cooperation. Do not rush a sitting and avoid getting flustered. You must always control the situation.

Invite your subject into the studio in a casual way. Have a bright light on, usually the main or modeling light. This way the shock of turning on a bright light in a dark studio is avoided. Ask the subject to be seated; a motion with your hand may be enough. A person who is treated in a friendly yet respectful manner, and kept in casual conversation, usually strikes a natural pose better than one who is not. If this fails, you must skillfully direct the subject. At times you may have to touch the subject to adjust a hat, sleeve, necktie, coat, and so on. Before touching the subject, explain to the person what action you are about to take.

Talk to your subject and direct movements, from in front of the camera, within the circle of light. It is disturbing for the subject to hear a voice from a dark void trying to direct his or her movements.

Posing is the most unpredictable part of a portrait session. The subject is at a mental disadvantage because he has to follow your directions. This requires subtle handling on your part and an understanding of human behavior.

CAMERA HEIGHT

The best average camera height for a head-and-shoulders type of portrait is slightly above the subject's eye level. This places the subject's eyes well above the center of the picture space. Slightly above eye level then is a good place to start. Most portraits are made from this camera viewpoint, but individual features and characters of the subject often dictate a higher or lower camera position.

For three-quarter portraits, either sitting or standing, the camera height may need to be changed. For example,

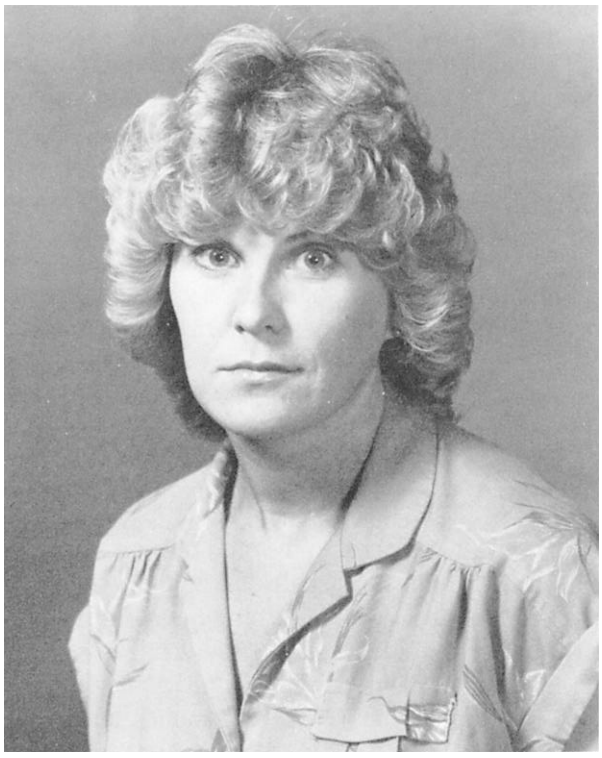

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Figure 7-1.–Subject looking directly into the camera.

302.158

Figure 7-2.–Subject looking too far away from the camera.

you may want to start with the camera level at the upper chest or even at the eye level of the subject. Other factors that should be considered when selecting the camera height (especially with a head-and-shoulder portrait) include the shape of the subject's face and facial features, such as a long nose and the length of the subject's neck By changing the height of the camera in relation to the subject, you can make corrections to emphasize or de-emphasize features of the subject.

For full-length portraits, you should start with the camera height about waist level and the lens parallel to the subject. When the camera height is too high or too low and the camera lens is tilted, distortion of the subject occurs. When the camera is too low, the subject's feet appear large and the head small. When the camera is too high, the subject's head and upper body appear large and top heavy.

A camera position below the eye level of a subject can produce a side effect that may be distracting; that is, showing the nostrils more prominently and causing them to appear as two black holes. To help remedy this situation, you should place the modeling light higher to cast a shadow beneath the nose, so the nostrils appear to blend in with the shadow area.

POSING

The posing bench should be set at an angle to the camera. When the bench is square to the camera, people tend to sit on it with their shoulders square to the camera This puts their shoulders straight across the picture and such a pose exaggerates the width of the shoulders. This pose is obviously inappropriate for a woman. When your subject is a male dignitary (VIP), a pose like this enhances those qualities. Very few people have positions that demand such a pose. Having the posing bench at an angle to the camera before the sitter arrives should automatically suggest to the subjects that they sit with their shoulders turned slightly from the camera. With the shoulders turned slightly from the camera and the head turned back toward the camera, a sense of motion is created. Even more motion and alertness can be suggested by having the subject lean slightly forward.

Eye Direction

To create an intimate portrait, the subject appears to return a glance to the viewer. The subject's eyes should look near the camera lens (just above or to the side of it). When the subject looks directly into the lens, a stare

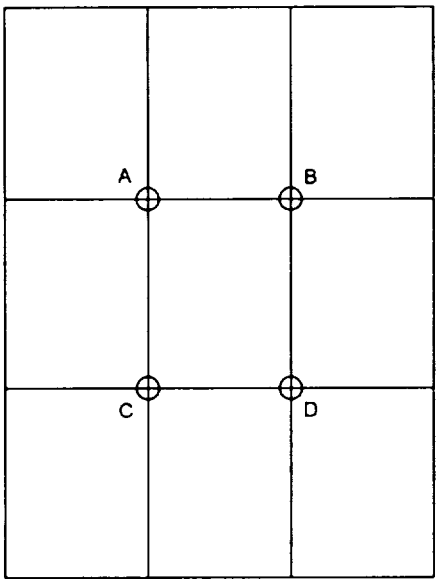

Figure 7-3.–Rule of thirds.

will result (fig. 7-1). When the eyes are looking too far away from the camera, a vague, faraway look results (fig. 7-2). The eyes also lose their brilliance and sparkle, and too much white shows when the subject's eyes are looking away from the camera.

Portrait Composition and Subject Placement

As in every type of photography, in portraiture there must be one, and only one, principal point of interest. Naturally, in a portrait, this is the subject's face. You can emphasize the point of interest in a portrait by doing the following:

- Having it contrast with the background
- Giving it the strongest lighting
- Posing the subject and arranging the props so all elements point to it
- Locating it at a strong point within the picture area

Where are the strong points within a portrait picture space? The *principle* of *thirds,* as discussed in chapter 5, applies to portraiture as well. These are the areas within a portrait that attract eye attention and are the preferred locations for the center of interest (fig. 7-3). In a portrait, when the main point of interest is located at Point A, the secondary point of interest should be at Point D. If B is the point of interest, C becomes the

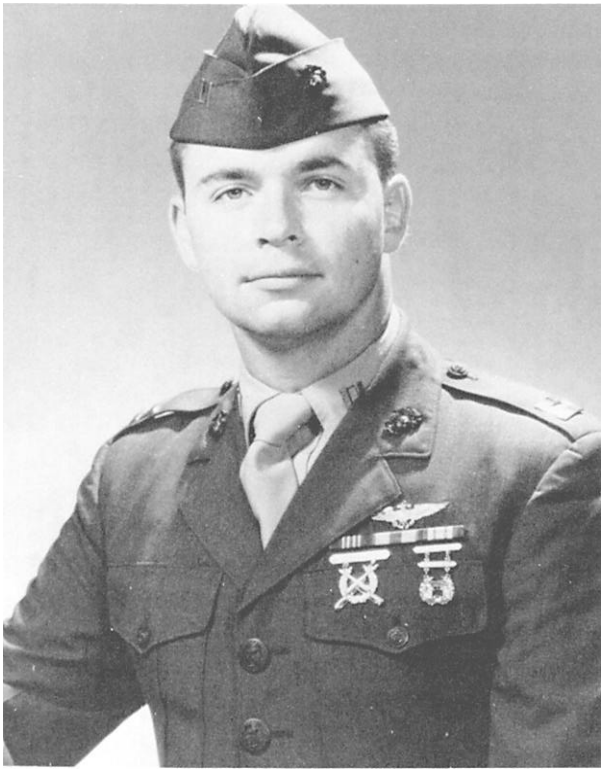

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Figure 7-4.–Subject placed too high in the photograph.

secondary interest point. Such an arrangement obviously balances the composition.

As stated earlier, the subject's face is the point of interest in a portrait and, of course, covers a considerable area in the picture space. Usually in portrait composition, the eyes fall close to Points A or B. But these positions are approximations only. The final adjustment of the head depends upon several factors: the eye direction, the shape of the body, and the leading lines. No rule can be given for best portrait composition. Rules only give guidance to a rough approximation of good placement. You can only arrive at the best composition for each portrait through the feeling for balance and subject position.

When the head and shoulders are placed high in the picture frame, a sense of dignity and stability is gained. Such placement is particularly appropriate when the subject is a person of importance, such as the CO. However, when the head is too high (fig. 7-4), viewing the picture is uncomfortable because there is a feeling that if the subject stood up he would bump his head. Also, when the head is too high, the proportion between head and body areas becomes awkward.

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Figure 7-5.–Subject placed too low in the photograph.

Most inexperienced photographers place the head too low, rather than too high. This is usually the result of the photographer's desire to show as large a head as possible. When the head is too low, there is not enough body to support it (fig. 7-5).

When the head is turned toward the side, avoid having the tip of the nose from coinciding with the outline of the cheek or projecting only slightly beyond the cheek line. In either case, the far eye will be divided by the nose. When the tip of the nose sticks out only a little beyond the cheek line, it appears as a lump on the cheek

Before you seat a subject, suggest that the subject may like to check his or her appearance in a mirror. Combing the hair, straightening a tie, setting a hat at the proper angle, and smoothing out the lay of the clothes should ensure a neat, well-groomed appearance. When the subject is in military uniform, be sure that medals, ribbons, insignia of grade or rate, and other accessories are worn properly. These minor details are easily overlooked and failure to correct a discrepancy may make it necessary to retake the portrait.

When a military subject is seated, one particularly important point to consider is the lay of the coat collar. The collar has a tendency to separate from the back of the subject's neck and project outward resulting in the impression of a hump. The coat should be pulled down to make the collar fit properly and make the line of the subject’s back appear free from slouch or slump. When the portrait includes only the head and shoulders, the drape of the coat can be improved by unbuttoning the lower button and pulling the bottom of the coat down.

The sleeves of a coat are another problem, particularly when you photograph a seated subject. There is a tendency for the sleeves to work up and wrinkle at the elbows, allowing either too much wrist or too much shirt cuff to show. To help remedy this, have the subject pull the sleeves of the coat down and straighten out the wrinkles as much as possible. Wrinkles, folds, and unwanted creases in a uniform detract from a neat appearance. When the subject is wearing a long-sleeved shirt under a coat and the hands will appear in the portrait, both shirt cuffs should be visible or both should be out of sight. Do not have one cuff visible and the other not.

Stay near the camera and tell the subject what to do. You are obligated to give directions regarding the pose. A subject is not able to see all posing aspects for the portrait. Whether the subject is an admiral or seaman, you are expected to detect and correct any discrepancy in pose, uniform, gestures, or actions, and so on. One of the greatest obstacles to successful portraiture is the timidness of some photographers and the way they handle the subject. Never take a portrait when something about the portrait is wrong because of fear or timidity to speak and act in the presence of high grade. The results will be disappointing and embarrassing.

When the military subject is to be photographed uncovered, be sure that the hat is removed far enough in advance so any impression on the forehead caused by the hatband has time to disappear.

When the subject shows a tendency to squint or blink, suggest that he rest his eyes by closing them for a moment. The facial expression is an important element to a good portrait. Unless some method is used to induce a pleasant expression, the subject will generally appear bored and uninteresting. Telling a subject to look this way or smile is not enough to cause the subject to smile. A forced smile sometimes looks more like a frown. A good method to get a pleasant expression is through conversation. Talk about a recent incident, a funny story, the weather, or any other topic that will cause the subject to concentrate on something other than the business of making a portrait. With most people, a smile is contagious. When you smile at a person, the person usually responds with a smile. Beware of a broad smile

because it rarely looks attractive, and it is usually not appropriate for a person in a military uniform. While you are trying to induce the expression that will show off the subject to the best advantage, be particularly observant of the details necessary to maintain a neat appearance and good composition.

FUNDAMENTAL PORTRAIT LIGHTING

The success of a portrait is equally dependent on lighting as on the pose of the subject. The manner in how the subject is lighted can actually set the mood of a portrait. The best portrait lighting will simulate natural sunlight. This is because we are accustomed to seeing faces illuminated from above and to one side with shadows cast downward and on one side or the other. Light coming from below eye level casts shadows upward and produces an unnatural, ghastly effect. Good portrait lighting shows off the subject to the best advantage, emphasizing the form and expressiveness of the facial features. When lighting appears pleasing and natural in a portrait, it produces prominent highlights on the forehead, nose, cheeks, and chin with enough shadows to round out the facial features.

Lighting for a studio portrait normally requires at least two lights. One of these is the *main, modeling,* or *key* light; the other is the *fill* or *fill-in* light.

Portrait lighting is divided into various types called lightings. Some of these lightings are as follows: broad, short, butterfly, Rembrandt, split, and rim. These names have been assigned because of the visual effects the lighting creates when it falls on the subject from a given direction. This visual effect is derived from the modeling light. Other light sources that may be added to the *modeling light* to enhance the subject are as follows:

- Broad lighting–The main light completely illuminates the side of the face turned toward the camera.

- Short lighting–The main light completely illuminates the side of the face turned away from the camera

- Butterfly lighting–The main light is placed directly in front of the face and casts a shadow directly under the nose.

- Rembrandt lighting–This is a combination of short and butterfly lighting. The main light is placed high and to the side of the face turned away from the camera and produces a triangle of light on the side of the face in shadow.

- Split lighting-The modeling light is placed to light completely one side of the face while placing the other side of the face in shadow.

- Rim lighting-The modeling light is placed behind the subject and places the entire face in shadow.

MAIN LIGHT

The main light is often called the *modeling* light because it is used to model the face (or subject). The main light creates a three-dimensional effect by either emphasizing or de-emphasizing the curvature and characteristic features of the face with highlights and shadows. The modeling light should always be the one dominant light source in a portrait because it controls the direction of the shadows.

The direction of the main light establishes four basic portrait lightings. These basic lightings are as follows: *three-quarter lighting, side lighting, frontlighting,* and *backlighting.* When reading other books on portrait lighting, you will often encounter other names depending on what the author wanted to call the lightings. You, as a Navy Photographer's Mate, will mostly be concerned with three-quarter (broad and short) and front (butterfly) lighting.

We also designate each of our lightings as high, medium, and low for vertical position. To go further, we designate the lighting as right or left of the subject.

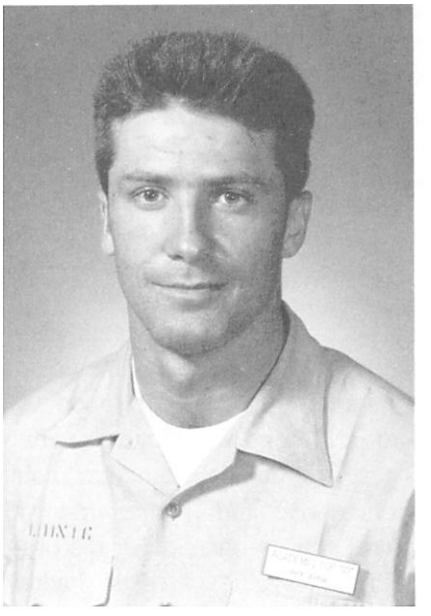
These lighting positions change with each subject. When setting portrait lights, you should always study the effect and view the subject from the camera position, preferably through the viewfinder.

THREE-QUARTER LIGHTING

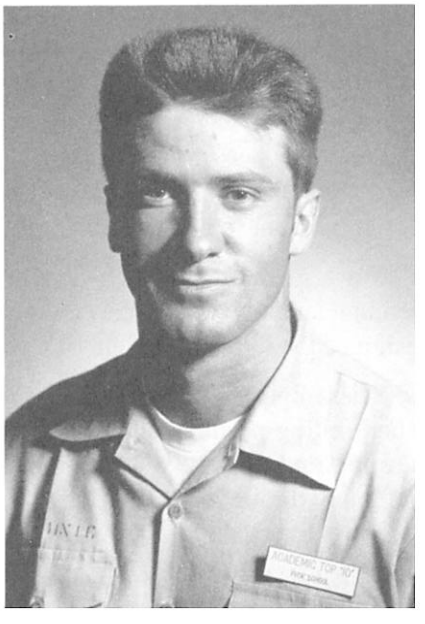
Broad and short lighting are two types of three-quarter lighting, and they are the types that you most often use for official portraits. The only difference between the two is the position of the main light and the way it illuminates the subject.

Short lighting is used for people with a normal shaped face or people who have a wide face. When short lighting is used, the side of the subject's face that is away from the camera is illuminated. This puts the side of the face towards the camera in shadow. By putting the side of the face towards the camera in shadow, you can provide a slimming effect.

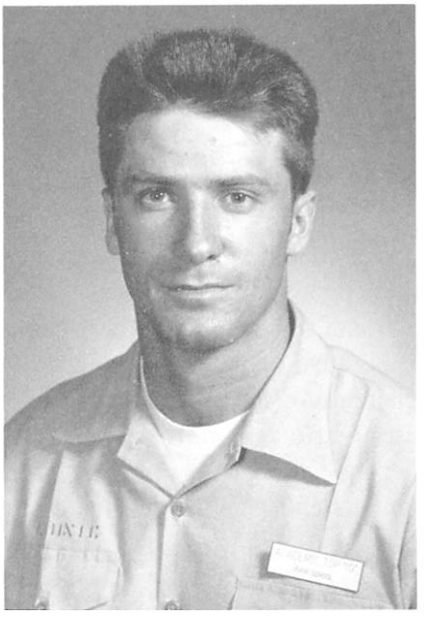
SHORT LIGHTING
MAIN LIGHT ONLY



SHORT LIGHTING
WITH FILL LIGHT



BROAD LIGHTING
MAIN LIGHT ONLY



BROAD LIGHTING
WITH FILL LIGHT

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Figure 7-6.–Broad and short lighting.

Broad lighting is useful for subjects with a narrow face. When broad lighting is used, the side of the face towards the camera is illuminated, and the side of the face away from the camera is in shadow. This provides a widening or broadening effect of the face. Refer to figure 7-6 to compare the differences of short and broad lighting.

Main Light Distance

The power or intensity of the main light is not the determining factor for the distance the main light is placed from the subject. It is the visual effect the light has on the subject that determines this distance. When the main light is too high and close to the subject, there

may be too much light falling on the forehead and not enough light falling on the lower part of the face. This effect can be improved by moving the main light farther away from the subject and placing it correctly.

Highlights on the forehead, the upper cheeks, the chin, and along the bridge of the nose are created by the main light. These highlights give life, brilliance, and form to a portrait, and the quality of these highlights are controlled by the main light distance.

To determine the main light distance, start with the light about 4 feet from the subject and about 2 feet above the subject's eye level. The light should be about a 45-degree angle to the lens axis. Observe the forehead highlight and move the light closer to the subject; as the light gets closer to the forehead, highlights spread out to a large, flat area and begin to wash out.

Now, start moving the main light away from the subject. As you slowly move it back, you will find there is a point where the forehead highlight becomes relatively small and bright. When the light is moved back much further from this point, the highlight spreads and disappears. Between the point where the highlight is brightest and where it starts to disappear lies the range where the highlight still has character. This point is where you get the most pleasing effect. Once you have found the distance where the main light gives your desired effect, the *distance* should remain the same regardless of the *direction* you need to move the light. This main light distance should always be considered as the *starting* point of portrait lighting.

Main Light Height

To determine the correct height for the main light, move the light directly in front of the subject while maintaining the distance determined for the forehead highlight. Raise or lower the light until the shadow cast by the nose is just long enough to touch the top edge of the upper lip. This is the height the main light should normally be no matter at what position you place it in an arc around the subject.

When your subject is wearing a hat with a visor, the visor shadow should fall naturally across the face. Many photographers think the shadow cast by the visor should not shade the eyes. The shadow from the visor *should* shade the eyes, however, in a portrait, this shadow should not be so dark that shadow detail is lost and the eyes are hard to see. To prevent this shadow from being too dark, raise the main light to the desired height, and instead of aiming it down at an angle, aim it straight. This way the light is cast under the visor and prevents the shadow from becoming too dark

Main Light Direction

By the time you have determined the main light distance and the height for a given subject, you should have a pretty fair idea of the direction you want the main light to come from. To establish the direction from which this light should come, move the main light in an arc, to the right or left, around the subject. Remember, while moving the main light, its established distance and height should be maintained.

The shadow cast by the subject's nose is your key to main light direction. The light should be moved around until the shadow cast by the nose merges with the cheek shadow and leaves a small, triangular highlight on the cheek. When this is done, the main light is in position. Remember, the main light must always be the dominant, directional, shadow pattern forming light.

Fill-in Light

Once the main light has been established, the fill or fill-in light is added. This fill light is a secondary light and must not overpower the main light. Its purpose is to fill in and soften the shadow areas, making them lighter, and to provide shadow detail.

The fill light is normally placed slightly above the subject's eye level, on the opposite side of the camera from the main light and near the camera lens axis. The fill-in light should be less intense than the main light and of softer quality. This light is often diffused even when the main light is not.

By placing the fill light slightly above the subject's eye level, you can cast a shadow under the chin. This shadow separates the head from the neck. The chin shadow should be soft and unpronounced.

The intensity of the fill-in light can be controlled by either adjusting the power setting of an electronic studio light set or adjusting the light-to-subject distance. The fill light can be moved in an arc to the side of the subject and away from the camera. The fill light must not produce conflicting shadows (shadows that point toward the main light).

Catch Light

There should be a small, bright reflection of the main light in the eyes of the subject. This is a catch light. The catch light adds life and brilliance to a portrait and

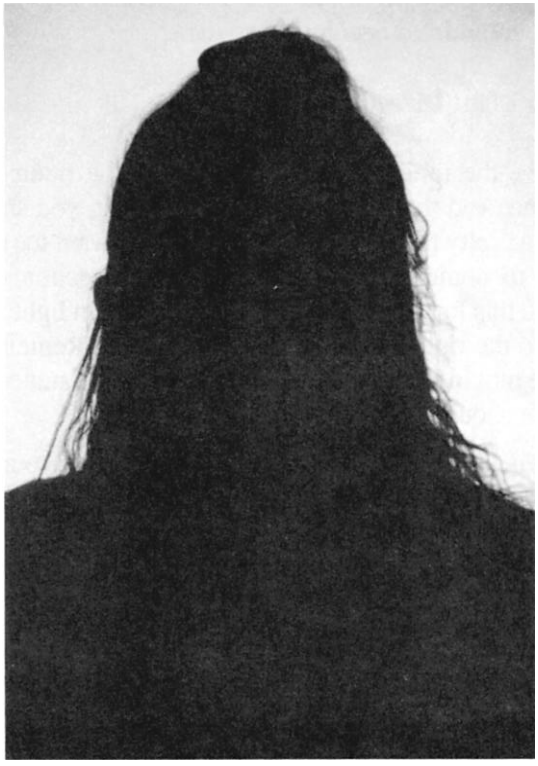

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Figure 7-7.–Effect of background light.

gives the eyes sparkle. There should be only one catch light in each eye, and it should be high in the iris of the eye. For broad lighting, the catch light should be approximately in the 11 o'clock position. The main light for short lighting should create a catch light at approximately the 1 o'clock position.

Lighting Ratio

The lighting ratio for portraits should usually be about 3:1 or 4:1-3:1 is about maximum for good color portraits. To refresh your memory on how to establish lighting ratios, refer to chapter 5.

Background Light

The third light in studio portrait lighting is the background light. A background light is usually placed on a low stand midway between the background and the subject. When adjusted correctly, the background light provides good tonal separation between subject and background. The intensity of the light falling on the background should not normally be greater than the intensity of the light from the main light falling on the subject's face. By increasing or decreasing the intensity of the light on the background, you can control the tone or color reproduction of the background in the finished print.

To reproduce the background color to its “true” color in a color print, it must receive the same amount of light as the subject's face. When taking portraits for use on a roster board, you want the tone and color of the background to be consistent. When the backgrounds vary in color, the roster board does not appear uniform, and the attention of the viewer is distracted.

When a background light is used, it is wise to position it before setting up any other light. It is easier to determine its effect without the interference of the main and fill light. The background light should be positioned so the brightest area of the light illuminates the background directly behind the head and gradually falls off into the corners of the frame (fig. 7-7). When the background light is set in this manner, it separates the head from the body and draws the viewer’s attention to the subject's face.

Hair Light

Once the main, fill. and background lighting is established, additional lights may be added to the setup. One such light is a hair light. A hair light is usually a small lighting unit placed on a boom so it shines down from above and behind the subject. It is used to lighten the hair (or hat) and shoulders, add detail to the hair, and separate the subject from the background, presenting the illusion of a third dimension (fig. 7-8).

The intensity of the hair light varies with the subject since it is dictated not only by the color of the person's hair (or hat) but also by the amount of sheen the hair has.

The hair light is usually placed on the side of the subject opposite the main light and behind the subject. It should be used from an angle about 6 to 8 feet high and from a position close to the center of the subject area without the light stand or boom showing in the picture. Light from this unit should not be allowed to spill over onto the forehead or tip of the nose. The hair light normally has a snoot attached so light from it does not strike the camera lens.

Be sure the hair light is turned off when making any exposure readings. This light does not affect your basic film exposure, but it could influence your meter.

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Figure 7-8.–Effects of hair light.

Flexibility of Three-Quarter Lighting

Three-quarter lighting can be used with almost any type of face. It is flexible because once it is set, the subject can move his head from full face to profile and the lighting remains good at any point you choose to pose the sitter. The degree of flexibility is determined by the type of light used (spot or flood) and the size and type of reflector used.

SIDE LIGHTING

With side lighting, the face is lit more intensely on one side than the other (fig. 7-9). This type of lighting is well suited for young women that have smooth skin and regular facial features, or for men whose rugged character lines should be emphasized. As a Navy Photographer's Mate, you will not normally use side lighting for official portraits. To learn more about side lighting, refer to the reference list in the back of this training manual.

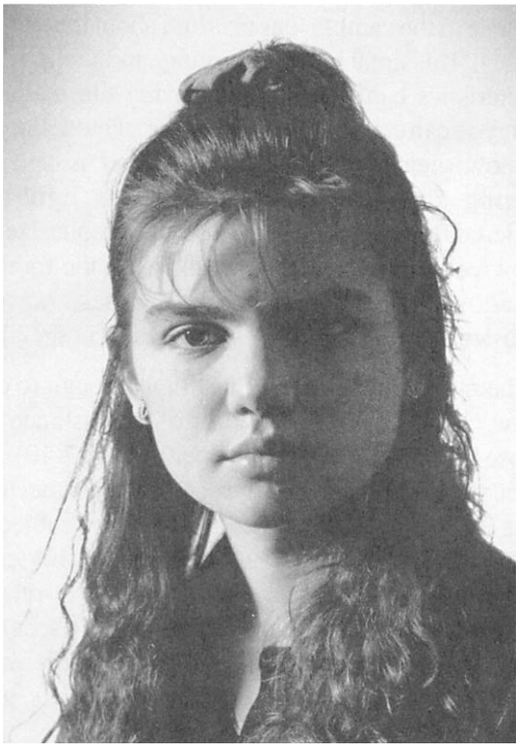

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Figure 7-9.–Side lighting.

BUTTERFLY LIGHTING

Butterfly lighting is often used when making portraits of women. To start, you can place the main light

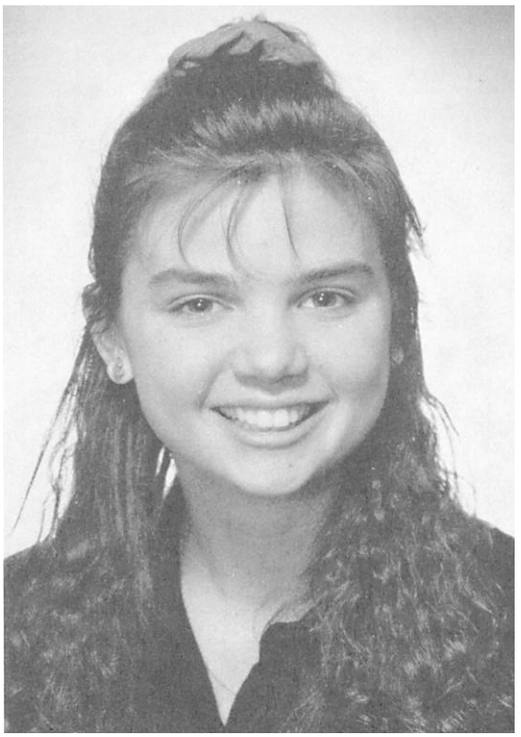

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Figure 7-10.–Butterfly lighting.

very close to the camera lens axis and about the subject's eye level. This creates a flat lighting, and facial feature characteristics can be lost. By moving the main light higher, you can create a certain amount of modeling. The light now creates a little modeling and is still very flattering and almost foolproof. This lighting is considered flattering because it does not emphasize lines or crowfeet around the eyes, wrinkles on the forehead, or shadows around the mouth. It does, however, emphasize eyes and eyelashes, especially in females.

The main light should be just high enough to cast a shadow of the nose about a third of the distance from the nose to the top edge of the upper lip (fig. 7-10). Each subject's face and nose is different, so the correct height for the main light varies slightly. When the subject has a long nose, the light should be low to shorten the shadow. When the subject has a short nose, raise the main light to lengthen the shadow. This has a secondary effect as well. It adds form below the eyebrow and accentuates any slight hollowness in the cheeks, giving a more provocative look.

When making a portrait of a person smiling, you must shorten the nose shadow because the upper lip draws up and the shadow goes over the lip. The nose shadow should not extend over or touch the edge of the lip. When it does, the lip form is destroyed and it appears unnaturally small.

The main light-to-subject distance is again determined using the forehead highlight test.

The fill-in light is positioned directly below the main light-close to the camera lens axis and slightly above the subject's eye level. The intensity of this light should be about one f/stop less than the main light. The lighting ratio is established by moving the fill light closer to or farther away from the subject to increase or decrease its effect. Balance also can be controlled by using diffusion screens over the fill-in light.

Although not as flexible as three-quarter lighting, frontlighting does have some flexibility. The subject's head can be posed from full face to profile. However, the nose shadow must always remain under the nose. Therefore, the main light must be moved with the head; and as the head moves to the three-quarter or profile position, the hair light also must be moved. The fill light is not moved.

RIM LIGHTING

Rim lighting is often used when making profile portraits. Rim lighting is the same as backlighting, where the subject is lighted from behind causing the facial features of the profile to be highlighted (fig. 7-11). Some suggestions to use when taking profile portraits are as follows:

- In a profile portrait, when a person looks straight ahead, only the whites of the eyes are seen by the camera. This causes an undesirable effect. Instead have the eyes cheat-turn the eyes slightly toward the camera, without turning the head, to show enough of the iris so the eye can be seen as an eye, not a white ball.
- Have the subject's head tipped back slightly. This separates the chin from the far shoulder, gives a better neckline, and reduces the appearance of a double chin.
- Allow more space on the side of the picture toward which the eyes are looking. This allows the subject to "look" beyond the frame.

If you are interested in learning more about rim lighting, refer to the reference list in appendix III.

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Figure 7-11.–Rim lighting.

FULL-LENGTH PHOTOGRAPHS

Officers of the Navy and Naval Reserve, in grades CWO3 through CWO-5, or O-3 through O-8, must submit a full-length photograph of themselves before being selected for promotion to the next higher rank. Other special selection boards require a full-length photograph to be included in the applicant's package, such as the limited duty officer program, Sailor of the Year, and other programs in which a selection board process is used. Candidates for officer promotion and LDO or CWO selection boards should refer to *NAVPERS Manual*, 15560C, and *NAVMILPERS-COMINST, 1131.1A*, respectively, for the most current information.

BACKGROUND

Since the studio setup is unique for full-length photographs, they should be scheduled at a time other than that of normal head-and-shoulders portraits. The background for full-length photographs must be a contrasting color from the uniform of the subject. Normally, white seamless paper is used because it provides the best results.

When white seamless paper is used for full-length portraits, it must drape down and provide enough coverage for the subject's head and extend to the deck so the subject is standing on it. You should protect the background from footprints and tears by laying down a protective material, such as paper or acetate.

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Figure 7-12.–Full-length photograph.

LIGHTING

When lighting a full-length portrait, you must light the entire body of the subject evenly and not allow objectionable shadows to show on the final product. This is best achieved when the subject is lighted with light diffused from two umbrellas. The background can be evenly lighted with two background lights. You should always conduct tests to determine the best lighting setup for your studio equipment and facilities.

POSE AND COMPOSITION

The full-length officer portrait must be a three-quarter view with the left shoulder forward. For officer promotion photographs, the prescribed uniform is summer khakis (summer whites where summer khakis are not authorized) and dress blues for LDO or CWO applications. All subjects will be uncovered unless otherwise stated in the applicants appropriate instruction. A menu board or hand- lettered title board must be placed at the subjects feet and be legible in the final photograph. The subject should be

centered both horizontally and vertically in the photograph (fig. 7-12).

The best camera and film to use for a full-length photograph is a 4x5 camera and a Polaroid 4x5 film back When this combination is used, the customer can leave the studio with the final product. Any camera or imaging system can be used, depending on your imaging facilities capabilities, providing that two 4x5-inch prints are furnished to the customer.

CORRECTIVE TECHNIQUES

The primary goal in portrait photography is to present the subject in a favorable and flattering manner. Your most difficult problem is combining the pose, lighting, and camera viewpoint to show your subject to best advantage. Because the photogenic qualities of each person's face vary, certain corrective techniques in posing, lighting, and camera heights can be used to help depict the subject favorably and improve the quality of the portrait. Changing the camera viewpoint, combined with proper lighting and pose, can create amazing alterations in the pictured appearance of any face. Table 7-1 shows corrective techniques and ways they can be used to correct common problem areas.

EXPOSURE CALCULATION FOR STUDIO PORTRAITS

Normally, the exposure for portraits should be based on the fill light alone as measured at the subject position. The fill light is the single source of illumination to the shadow areas and image detail in the shadow areas.

Table 7-1.–Corrective Treatments

Problem	Treatment
Fat, round face	Shoot three-quarter view, light side of face away from camera Use three-quarter or side lighting
Thin face	Shoot front, full face Use low three-quarter or side lighting
Wide forehead	Use low-camera viewpoint Tilt chin upward
Narrow forehead	Use high-camera viewpoint
Baldness	Use low-camera viewpoint Little or no hair light Blend head with background
Eyes close together	Shoot three-quarter pose
Eyes far apart	Shoot three-quarter pose
Small eyes	Shoot three-quarter pose Use three-quarter lighting so the eyes are in shadow
Large or protruding eyes	Use high three-quarter lighting Lower eyes slightly
Deep set eyes	Low-camera viewpoint Use frontlighting to keep eyes out of shadow
Uneven eyes	Turn head toward one side so natural perspective eliminates uneven appearance
Bags under eyes	Use makeup. Use frontlighting
Cross eyed or defective eye	Turn head so bad eye is away from camera. Light side of face toward camera to place other eye in shadow

Table 7-1.–Corrective Treatments–Continued

Problem	Treatment
Glasses	Use high front, three-quarter, or side lighting to eliminate reflections Raise the temple piece up slightly to angle lenses down lilt head downward Shoot full-face pose to prevent lenses from splitting cheek line Use indirect diffused lighting
High cheeks	Use low front or side lighting
Wide cheeks	Shoot three-quarter pose
Small ears	Turn head so camera sees only one ear Place exposed ear in shadow
Large ears	Turn head so camera sees only one ear Place exposed ear in shadow
Protruding ears	Turn head so camera sees only one ear Place exposed ear in shadow Shield light from exposed ear Blend ear into background
Long nose	Use low-camera viewpoint Use three-quarter or side lighting Apply dark makeup to tip of nose
Short nose	Use high-camera viewpoint Use frontlighting
Hooked nose	Shoot from a low-camera viewpoint Shoot front, full face
Crooked nose	Shoot from the side to which it curves Turn head until highlight along ridge of nose appears straight
Broad nose	Pose head away from a front view
Narrow mouth	Use lip color to extend lip line Turn head to one side so makeup is not apparent Position modeling light high to cast shadows at ends of lips
Wide mouth	Pose head in three-quarter view
Protruding lips	Use low-modeling light to eliminate shadow under lips
Thin lips	Fill out with lip color
Uneven mouth	Pose head in three-quarter view
Bad teeth	Do not have subject smile
Buck teeth	Subject may smile slightly Use full, front pose
Long chin	Use high-camera viewpoint

Table 7-1.–Corrective Treatments–Continued

Problem	Treatment
Double chin	Keep chin in shadow Have subject lean forward and look at camera
Small chin	Use full, front pose Use low-camera viewpoint
Square face	Use high-camera viewpoint
Oval face with a weak chin	Use low-camera viewpoint
Short neck	Use low-camera viewpoint
Long neck	Use high-camera viewpoint Keep neck in shadow
Facial blemishes	Keep in shadow Turn bad side of face from camera Apply makeup to a pimple or sore spot

When the exposure is based on the illumination intensity of the main light, the indicated f/stop produces underexposed shadow areas of the negative. With black-and-white negative film, the underexposure to the shadow areas may not be enough to cause loss of shadow detail. This is because of the greater exposure latitude and film processing latitude of black-and-white film compared to color negative film. With color negative film, however, underexposure to the shadow areas may cause loss of shadow detail and a color shift in the shadow areas that is uncontrollable in printing. Remember, basing your portrait exposure on the fill light alone applies only when the lighting ratios are within about a 2:1 to 4:1 range. Beyond a 4:1 lighting ratio, you may have to calculate your exposure based on both the main and fill lights.

PASSPORT PHOTOGRAPHS

Passport photographs should only be provided to United States military personnel, their dependents, and employees of the federal government when required for executing official orders. Providing such photography for purposes and to individuals other than this is an infringement of the rights and commercial enterprise and may violate U.S. Navy Regulations.

Passport photographs are normally taken on Polaroid film with a camera designed for passport photographs. The photographs must portray a good likeness of, and satisfactorily identify the applicant. Passport photographs must meet the following requirements:

- Photographs must be 2x2 inches in overall size. The image size, measured from the bottom of the chin to the top of the head (including hair), shall be not less than 1 inch or more than 1 3/8 inches. A quick method to determine the correct image size is the head should fit inside the frame of a 35mm slide mount.
- Passport photographs may be in color or black and white. Black-and-white photographs that have been tinted or otherwise colored are not acceptable. Prints which have been retouched to the extent that the applicant's appearance has been changed are also not acceptable. However, prints that have been retouched merely to eliminate shadows and lines are acceptable.
- Photographs that depict the applicant as relaxed and smiling are encouraged. Photographs should be portrait-type prints, meeting the size and image specifications listed above. Photographs must be clear, front view, full face, with a light, plain background.
- A passport photograph serves to identify the passport applicant. When glasses, a hearing aid, a wig, or similar articles are normally worn, these

articles should be worn when the photograph is made. Dark glasses with tinted lenses are not acceptable, unless required for medical reasons.

- Photographs should be made in normal street attire without a hat or other headgear that obscures the hair or hairline. Only applicants in the active service of the armed forces and who are proceeding abroad in the discharge of their official duties may submit photographs in the uniform of the U.S. Armed Forces. Other uniforms should not be worn in passport photographs.
- Photographs should be able to withstand temperatures up to 225°F (107°C) for 30 seconds.
- Photographs must be printed on thin paper so the seal and legend can be applied to the photograph.
- Automatic and self-developing prints are acceptable for passport photographs, providing they meet all other photographic specification. SX-70 and black-and-white Polaroid prints are not acceptable.
- Matte- or dull-finished photographs are preferred, but shiny or glossy prints may be accepted, provided the signature ink will stick to the surface of the photograph. Matte or other sprays designed to produce a dull or nonglossy finish should not be used.

PERSONNEL IDENTIFICATION PHOTOGRAPHY

The requirement for speed in identification photography makes it impractical to produce the same quality expected in portrait work However, with a little attention to the details of lighting, posing, and exposure, high-quality photographs can be provided.

Occasionally, a profile or three-quarter view may be required for naturalization photographs. However, most identification photos are made with the subject facing the camera and looking straight into the lens. Since identification photographs must reveal as much facial detail as possible, very few are flattering pictures.